

Non-compliance							Timing	
Schedule	Condition No	Requirement	Evidence sighted	Comments	Risk Assessment	Audit Recommendation	Final response	
3	43	(b) be consistent (as far as is possible) with the recommendations and objectives of the Leard Forest Mining Precinct Regional Biodiversity Strategy;	Leard Forest Regional Biodiversity Strategy Stage, Revised (unapproved) BMP October 2017	<p>It is understood that there has been significant delay in the finalisation of the Leard Strategy (Stage 2). The reasons behind this are complex and are not necessarily the responsibility of Boggabri Coal. In relation to Condition 50 (b) it is taken that the second part of the time trigger (within 6 months of approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy) applies in relation to this audit. While the current (unapproved) draft version of the Boggabri BMP that has been assessed in other parts of this document is the October 2017 draft, late during the audit period Boggabri Coal provided the auditor with a December 2017 version. As a result, it is the draft December 2017 BMP that is assessed for compliance or otherwise in relation to this condition. There have been no further iterations of the BMP since then. This version was submitted to OEH for review in December 2017, and OEH's review comments were provided back to Boggabri Coal in April 2018.</p> <p>As noted in Condition 43 (b) above the way in which the BMP and BOS are constructed means that there is fairly significant overlap in how a range of commitments and actions across both the operational and non-operational site and biodiversity offsets are reported. The BOS itself is part of the BMP. Overall, this audit finds that there is a non-compliance with Condition 50 (b), as well as with Condition 43 (b) (see above). While Boggabri Coal have demonstrated consistency with much of the Leard Strategy, in relation to the BMP and the BOS, there are a number of aspects that are not adequately consistent. For simplicity, the elements that are regarded as being non-compliant against both Condition 43 (b) and Condition 50 (b) are documented under Condition 50 (b) below.</p> <p>While the revised draft December 2017 BMP was submitted within 6 months of the Final Stage 2 Leard Strategy, and it has incorporated some elements of the recommendations of the Leard Regional Strategy, there are many recommended monitoring opportunities and completion criteria that have not been incorporated. There is also inadequate application of the SMART principles in the completion criteria of the biodiversity offset areas (BOAs). Sections of the Leard Regional Strategy that have not been incorporated (in part or fully) include:</p>	Low - there is an approved BOS in use so there is a low a chance of harm occurring	It is recommended that Boggabri Coal revise their December 2017 version of the BOS to appropriately incorporate the recommendations and objectives of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy. This should take into account OEH's review (dated 13 April 2018), and also any specific site-based factors that justify a modification to the approach documented in the Leard Regional Strategy. This could include a staged approach to certain components, including monitoring/performance feedback outcomes.	The current Approved Biodiversity Offset Strategy was finalised on 4 August 2017 (Rev E) and submitted to The Department of Planning and Environment on 16 August 2017. The Office of Environment and Heritage endorsed this BOS (RevE 2017), with subsequent approval by the Department of Planning and Environment on 1 September 2017. The Leard Forest Regional Biodiversity Strategy Stage 2 - Strategy Report (LFRBS) was finalised in August 2017 (no specific date in August 2017). As the LFRBS was not available for inclusion in the revised BOS (Rev E), which was finalised 4 August 2017, Boggabri Coal cannot be found to be non-compliant. The approved 2017 BOS (Rev E) is currently under review to incorporate recommendations and objectives of the LFRBS.	15-December-2018
3	49	(b) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;	BMP refers to "Objective 186 - An Integrated Approach to Biodiversity Management." The aim of this is to "achieve the overarching biodiversity management objectives for the Project through the integration of the RMP and BMP." To achieve this the document lists the following management strategies: a) "the management measures provided in the RMP and BMP consistent and allow an integrated approach to biodiversity management"; and b) "where feasible develop strategies to cover both the Project Boundary and BOAs (e.g. the weed and pest management strategy)". It provides the following performance criteria: - "management measures are planned and implemented consistently within the rehabilitation sites, surrounding areas within the Project Boundary and BOAs."	It is recommended that the BMP provide detail on how the biodiversity offset strategy will be consistent with the overall rehabilitation of the site, including figures showing the final proposed revegetated BOAs, site revegetation/retained vegetation and mine rehabilitation vegetation communities, and suitable habitat for threatened fauna species	Observation Low - there is a moderate level of impact if the overall BOS is not integrated with the overall rehabilitation of the site. The overall risk is considered low due to the content of the BOS.	It is recommended that the BMP be revised to include clear descriptions and appropriate details (including mapping) of how the Biodiversity Offset Strategy will be integrated with the overall rehabilitation of the site.	The approved BMP Section 1.2 describes the interaction approach to the various plans including BMP and RMP and the auditor has identified that section 7.18 further outlines this condition as an objective with management strategies and performance measure. The approved BMP clearly show the areas of proposed rehabilitation subject to the RMP and areas of Biodiversity offset areas proposed for planting. It is considered that the auditor recommendation to specially include mapping demonstrating how the RMP rehabilitation would fit with the final BOS rehabilitation is an administrative recommendation rather than non compliance. The approved BMP is currently being revised following consultation with DP&E and OEH. The BMP will be updated to provide clear descriptions, details and mapping as to how the BOS will be integrated with overall rehabilitation of the site.	15-December-2018
3	49	(xiv) translocating and/or propagating the threatened flora species <i>Tylophora linearis</i> located within the project disturbance boundary - including details of methods and timing of propagation trials and programs and investigations into assisted natural regeneration in mine site rehabilitation and biodiversity offset areas.	No mention of translocation plan in 2015 Biodiversity Management Plan. This Biodiversity Management Plan would not have this translocation plan as the need for this plan was added to the project approval after this report was approved.	The 2017 Management Plan (in review) does have a translocation plan. This translocation plan does not mention assisted natural regeneration. This is a potential non-compliance if this issue is not resolved in the BMP that is under revision.	Observation Should this issue not be resolved the risk rating would be Low - potential for low environmental consequence, but is likely to occur. There is no translocation plan in place and the eplan is under review does not address assisted natural regeneration. Assisted regeneration is highly important for the species to recover	Update the BMP to have the translocation plan adjusted to have assisted natural regeneration included	The Audit is specifically related to the approved BMP (2015) as directed by DP&E and acknowledged by Auditor in Section 2.1 of the audit report. The condition 49 (e) (xiv) was not relevant at the time of preparing the approved 2015 BMP and as such cannot be found to be non compliant. Boggabri Coal is currently revising their BMP and translocation plan following consultation with DPE and OEH to be consistent with condition 49 (e) (xiv). The Auditors non-compliance due to their opinion on current draft revisions of the translocation plan are not relevant to the audit. A recommendation from the auditor to ensure that the current revision to the translocation plan is consistent with Condition 49 (e) (xiv) is acknowledged and acceptable.	15-December-2018

3	50	(b) demonstrate consistency with any findings of Leard Forest Mining Precinct Regional Biodiversity Strategy;	Leard Forest Regional Biodiversity Strategy Stage Two Report, Revised (unapproved) BMP October 2017. The approved BMP would not need to be in accordance with the Leard Strategy because this strategy was released after the BMPs approval.	<p>It is understood that there has been significant delay in the finalisation of the Leard Strategy (Stage 2). The reasons behind this are complex and are not necessarily the responsibility of Boggabri Coal. In relation to Condition 50 (b) it is taken that the second part of the time trigger (within 6 months of approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy) applies in relation to this audit. While the current (unapproved) draft version of the Boggabri BMP that has been assessed in other parts of this document is the October 2017 draft, late during the audit period Boggabri Coal provided the auditor with a December 2017 version. As a result, it is the draft December 2017 BMP that is assessed for compliance or otherwise in relation to this condition. There have been no further iterations of the BMP since then. This version was submitted to OEH for review in December 2017, and OEH's review comments were provided back to Boggabri Coal in April 2018.</p> <p>As noted in Condition 43 (b) above the way in which the BMP and BOS are constructed means that there is fairly significant overlap in how a range of commitments and actions across both the operational and non-operational site and biodiversity offsets are reported. The BOS itself is part of the BMP. Overall, this audit finds that there is a non-compliance with Condition 50 (b), as well as with Condition 43 (b) (see above). While Boggabri Coal have demonstrated consistency with much of the Leard Strategy, in relation to the BMP and the BOS, there are a number of aspects that are not adequately consistent. For simplicity, the elements that are regarded as being non-compliant against both Condition 43 (b) and Condition 50 (b) are documented under Condition 50 (b) below.</p> <p>While the revised draft December 2017 BMP was submitted within 6 months of the Final Stage 2 Leard Strategy, and it has incorporated some elements of the recommendations of the Leard Regional Strategy, there are many recommended monitoring opportunities and completion criteria that have not been incorporated. There is also inadequate application of the SMART principles in the completion criteria of the biodiversity offset areas (BOAs). Sections of the Leard Regional Strategy that have not been incorporated (in part or fully) include:</p> <p>Strategic Biodiversity Offset Monitoring Opportunities (table 2.2 of strategy):</p> <p>1.1 Natural regeneration: Autumn/spring monitoring events are not included (this is the same for section 1.3 of the strategy).</p> <p>2.1 Salvage of habitat resources: no mention of monitoring the usage of salvaged habitat.</p> <p>2.2 Habitat augmentation and nest box installation: the BMP does not explain how it arrived at the 1 nest box per hectare measurement (in relation to the Leard Strategy requiring the number of hollows at the offset site to be at least as many as those number of utilised hollows that are removed from the impact site (the offset hollows can be natural hollows and/or nest boxes). There is also no mention of monitoring for signs of use by fauna.</p> <p>5.1 Connected landscapes and broader regional corridors: no mention of radio tracking, bird banding, or remote camera use to monitor fauna use of connected landscapes.</p> <p>Strategic Biodiversity Performance Measures and Preliminary Completion Criteria (table 2.3 of strategy): Completion criteria for Strategic Focus Area 1 have not been adopted in the completion criteria of the BOAs.</p> <p>2.1 Habitat augmentation and nest box installation: completion criteria in the BMP only asks for provision of nest box installation – it does not require fauna to actually use the structures. The Leard Strategy requires 80% of the nest boxes installed to be utilised by native species.</p> <p>5.1 Connected landscapes and broader regional corridors: BMP has no completion criteria for the success of any habitat corridor.</p>	Low' - it is regarded that there is potential for low environmental consequences, and that this is likely to occur.	It is recommended that Boggabri Coal revises its draft December 2017 BMP to appropriately reflect the recommendations and objectives set out in Stage 2 of the Leard Regional Strategy (final August 2017). It is advised that particular attention is given to tables 2-1, 2-2, and 2-3 of the strategy when considering management plans, monitoring procedures, and completion criteria. This should take into account OEH's review (dated 13 April 2018), and also any specific site-based factors that justify a modification to the approach documented in the Leard Regional Strategy. This could include a staged approach to certain components, including monitoring/performance feedback outcomes.	<p>Condition 50 of the Project approval states that <i>The Proponent shall revise the Biodiversity Management Plan within 30 months of the date of this approval, or within 6 months after the approval of Stage 2 of the Leard Forest Mining Precinct Regional Biodiversity Strategy, whichever is sooner. The revised Plan must: (b) demonstrate consistency with any findings of Leard Forest Mining Precinct Regional Biodiversity Strategy.</i> Due to significant delays in finalising the Leard Strategy (Stage 2, finalised August 2017) acknowledged in the Auditors Report, the condition lends itself to the former (and sooner) timeframe of within 30 months of the Project's approval in July 2012 (i.e. 2015). In addition, the audit was specifically related to the approved BMP (2015) as directed by DP&E and acknowledged by the Auditor in Section 2.1 of the audit report. As the LFRBS (Stage 2) was not available for inclusion in the Approved 2015 BMP, Boggabri Coal cannot be found to be non-compliant. Nevertheless, Boggabri Coal are currently revising their BMP following consultation with DP&E and OEH to be consistent with the recommendations and objectives of the LFRBS (Stage 2). In reviewing the management actions of the LFRBS, as outlined in Table 2.1 of the Stage 2 report, the current revised draft BMP (2017) incorporates all management actions across the six focus areas identified in the report and performance/ completion measures generally consistent with those outlined. This is specifically referenced in Section 7.1.1 (Table 7.1). Furthermore, the LFRBS (Stage 2) states in Section 2.1.3 that these are only "recommended performance measures and preliminary completion criteria" for the offset sites, and it is acknowledged that further detail in relation to particular offset site is to be clearly detailed in the BMPs for individual project sites. Boggabri Coal are of the view that the performance measures and completion criteria within the draft BMP 2017 demonstrates consistency, however, have been modified to reflect the site specific condition of Boggabri Coals offsets. The Auditor's non-compliance due to their opinion on current draft revisions of the BMP are not relevant to the audit. A recommendation from the Auditor to ensure that the current revision to the BMP is consistent with Condition 50 is acknowledged and acceptable.</p> <p>Boggabri Coal accepts that there is merit for incorporating additional strategic biodiversity offset monitoring opportunities into the revised BMP, such as autumn/spring monitoring events, monitoring of salvaged habitat, connected landscape monitoring (remote camera use, in addition to extra diurnal bird and microbat fauna monitoring sites) and monitoring for signs of nest box use. However, due to commercial implications and the infancy of restoration activities in the biodiversity offset areas, Boggabri Coal disagree with incorporating radio tracking and/or woodland bird banding in the current revision of the BMP. Furthermore, whilst it is anticipated that native hollow-dependent fauna will use supplementary tree hollow structures, Boggabri Coal considers it unreasonable to have a completion criteria of 80% usage rate, when dry woodlands and forests of the western slopes and plains typically retain a relatively low carrying capacity and that the nest box supplementation will occur in non-old growth habitat scenarios such as mine rehabilitation areas biodiversity offset restoration areas.</p>	15-December-2018
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3	54	The Proponent shall prepare a Eucalyptus Forestry Plantation Offset Strategy to the satisfaction of Forests NSW, within 12 months of the date of this approval. The Forestry Plantation Offset Strategy shall provide at least a minimum 168 ha plantation area (as committed in the EA), or alternative as agreed by Forests NSW. The Strategy shall identify proposed funding and management arrangements for the development and maintenance of the plantation offset. If there is a dispute over these requirements, either party may refer it to the Secretary for resolution, whose decision shall be final.	Boggabri Coal Mine submitted this strategy to Forests NSW. It was rejected by Forests NSW. Have requested rejection letter. Have sighted email from Dr Jan Green submitting the first Forestry Plantation Offset Strategy	Rejection Letter from Forestry NSW and a brief on what Boggabri Coal plan to do due to this rejection	Low - As the land that is to be used as a forestry development, a delay in this strategy is seen to have low impact on the environment	It is recommended that Boggabri Coal seeks to continue to work with Forestry NSW to develop a Plantation Offset Strategy that both parties agree is mutually	NSW Forest has provided a written response on the Forestry Planation Strategy on the 11th of May. Boggabri Coal will continue to work with FCNSW to reach an agreement with regards to this condition.	15-December-2018
Management Plans (Audit Section 3.5)								
3	53	(b) Assess the performance of the revegetation in the rehabilitation area completed to date against the completion criteria in the Rehabilitation Management Plan	Rehabilitation Monitoring Report (May 2017) addressing the 2016 monitoring year		Not applicable	It would be of value in future monitoring to report actual data for all 10 of the biometric values include in the completion criteria. Currently actual data is not reported for hollows, logs, regeneration and exotic plant cover	Due to the relatively young age-cohort (earliest planting approaching 10 years old) of the existing mine rehabilitaiton area, annual mine rehabilitation area reporting has focused on key biological variables measured whilst the rehab establishes; such as species richness for native plants, dirurnal birds, micro-bats and insects. Nevertheless, this recommendation is acknowledged and acceptable, and future monitoring reports will incorporate all biometric values included in the completion criteria for ecosystem establishment, ecosystem development and functioning regional wildlife corridor in Appendix A of the Rehabilitiaton Management Plan (October 2015).	28-February-2019
						Further to the above point, to provide useful information on the likely long-term self-sustainability of the rehabilitated native ecosystem areas, it would be valuable to collect more detailed and widespread information on regeneration/recruitment of plant species. This would include information on second and third generation individuals (where such knowledge is practically attainable, such as for trees) and presence of reproductive structures. This will provide useful guidance in future years on any further measures that might be required to assist the long-term persistence of the revegetated vegetation and habitats.	Due to the relatively young age-cohort (earliest planting approaching 10 years) of the existing mine rehabilitaiton area, annual mine rehabilitation area reporting has focused on key biological variables measured whilst the rehab establishes; such as species richness for native plants, dirurnal birds, micro-bats and insects. Nevertheless, this recommendation is acknowledged and acceptable.	28-February-2019.
						Undertaking trials of certain management approaches would be of value, again to provide valuable information on the likely long-term suitability of the rehabilitated areas fro threatened species and self-sustainability. For example, tralling a number of areas for eucalypt thinning (where tree canopies are crowded and do not appear to naturally thin after 10 years) to ascertain if native groundcover and second and third generation trees and shrubs can be stimulated. This would need to be undertaken in careful consideration of the risk of weed invasion , particularly Rhodes Grass. Furthermore, trialling the establishment of nest boxes placed on poles amongst established regeneration, to encourage further use of the rehabilitation by micro-bats, birds and arboreal mammals.	Boggabri Coal has been considering trialling management actions in the existing mine rehabilitaiton area, including thinning of canopy trees and opening 'rooms' which many threatened woodland dependent species are dependent upon in natural mosaic habitats. This recommendation is acknowledged and will be considered further by Boggabri Coal.	15-December-2019
3	53	(c) Assess the performance of management and restoration in the off-site Biodiversity Offset Sterategy areas completed to date against the completion criteria in the Biodiversity Management Plan	Biodiversity Management Plan (approved version January 2015). Section - Implementation of the Biodiversity Offset Strategy; Setion 9 of the BMP details monitoring, inspection and reporting program and includes Table 9.7 which document the completion criteria for biodiversity management within BOAs.		Not applicable	It would be of value in future monitoring to report actual data for all 10 of the biometric values included in the completion criteria. Currently actual data is not reported for hollows, logs, regeneration and exotic plant cover	During consultation and development of the Revised Biodiversity Offset Strategy (in accordance with Project approval condition 43) an additional five biodiversity offset properties were incorporated into the Biodiversity Offset Area by 2015. 2015 was the first year where all 10 biodiversity offset properties were secured and available for monitoring in totality. Consequently, the 2015 annual biodiversity monitoring event was taken as a baseline to provide a more ecologically and statistically robust ecological monitoring program for future comparison. In addition, due to the infancy of management, restoration and improvement of biodiversity values across the offset areas, annual biodiversity offset area monitoing reports have focused on describing key biological variables measured, whilst habitat restoration areas are planted and begin to establish. To date, restoration activities have been completed on the Wirrilah BOA (planted 2017), and two areas of the Namoi BOA (planted late 2016 and 2017). It is acknowledged that value would be derived from future monitoring reports that present data for biometric values that are described in the BOA completion criteria.	28-February-2019
						Trialling different forms of planting other than strip-based tubestock is encouraged. It is understood that there must be careful balance between meeting restoration aobjectives and financial cost. However, in some areas it is recommended that patch planting is trialled, where the prospects for in-filling between patches through natural generation/recruitment are high.	Boggabri Coal will review the overall approach and if possible introduce different forms of tube stock planting such as clusters or clump plantings in small areas. If a new approach is taken on then it is to be reviewed to see if any benefit will be provided by changing the approach in small discrete areas	15-July-2019
Recommendations for Continual Improvement								
						Trial some thinning of dense eucalypts in woodland rehabilitaiton to stimulate growth of those remaining and also to stimulate general flora species diversity and establishment.	This recommendation is acknowledged and acceptable. Please see response in Row 11, Cell H.	15-December-2019
						Establish nest boxes (targeting those fauna species that are the subject of Condition 45) in the rehabilitaiton area to provide more structural and habitat diversity to encourage occupation by threatened fauna species.	Boggabri Coal will aim to introduce nest boxes in the rehabilitation area	15-July-2019

						<p>Trial some 'clump' or 'pocket' plantings in the biodiversity offset areas. Rather than broadscale planting in rows, seek to introduce some habitat heterogeneity through the establishment of clumps with unplanted spaces in between that are available for eucalypt etc recruitment from the clumps.</p>	<p>Boggabri Coal will review the overall approach and if possible introduce different forms of tube stock planting such as clusters or clump plantings in small areas</p>	<p>15-July-2019</p>
						<p>Dedicate small but appreciable portions of BOAs and the rehabilitation area to these trials and undertake appropriate monitoring over several years to detect if any positive differences result.</p>		
						<p>Rehabilitaiton and restoration efforts would be improved if there was a chain of custody for the movement of habitat and soil stockpiles. This would involve recording the removal location, date and condition of the salvaged material; the area the salvaged material is eventually placed. The TARP in the Rehabilitaiton Management Plan should be adapted and included into the BMP. Stage 2 of the Leard Forest Regional Strategy includes a TARP that would be easily adapted for Boggabri Coal.</p>	<p>Boggabri Coal to review the TRAP in Stage 2 of the Leard Forest Regional Strategy to see if it can assist in providing benefit to the overall program</p>	<p>15-December-2018</p>
						<p>As stated in Section 3.4, Stage 2 of the Leard Forest Regional Strategy has not been implemented fully. Many aspects of the BMP are not in line with Stage 2 of the strategy; completion criteria are broad, and hard to measure and without reasonable timeframes; performance criteria are simple; and overall it does not follow SMART principles. It is recommended that Boggabri Coal incorporate tables 2.1 - 2.3 of Stage 2 of the regional strategy into Section 6 and 7 of the BMP.</p>	<p>Please refer to response provided in Row 6, Cell H.</p>	<p>15-December-2018</p>
						<p>It is recommended that broad scale mapping of how the BOA restoration areas and the project rehabilitaiton areas fit together is created. This would optimally include differing vegetation communities being established and the key habitat corridors being produced.</p>	<p>This recommendation is acknowledged and acceptable. Please see response in Row 4, Cell H.</p>	<p>15-December-2018</p>

Leard Forest Regional Biodiversity Strategy Stage 2 - Strategy Report (August 2017)

Boggabri Coal Mine Biodiversity Offset Strategy (4 August 2017); sent to DP&E 16 August 2017, endorsed by OEH & approved by DP&E on 1 September 2017